

KOCHETKOV, N.K.; KHORLIN, A.Ya.; BOCHKOV, A.P.

Monosaccharide orthoesters as glycosidation agents. Izv.
AN SSSR. Ser. khim. no.12:2234 D '63. (MIRA 17:1)

1. Institut khimii prirodnikh soedineniy AN SSSR.

KOCHETKOV, N.K.; BUDOVSKIY, E.I.; TURCHINSKIY, M.F.; DEMUSHKIN, V.P.

Primary structure of RKA. Specific splitting of ribonucleic acid. Dokl. AN SSSR 152 no.4:1005-1008 0 '63. (MIRA 16:11)

1. Institut khimii prirodnnykh soyedineniy AN SSSR.
2. Chlen-korrespondent AN SSSR (for Kochetkov).

MOLODTSOV, N.V.; KOCHETKOV, N.K.; DEREVITSKAYA, V.A.

Glycopeptides. Part 6: Further development of the synthesis of N-aminoacyl derivatives of amino sugars. Izv. AN SSSR, Ser. khim. no.12:2165-2172 D '63. (MIRA 17:1)

1. Institut khimii prirodnnykh soedineniy AN SSSR.

KOCHETKOV, N.K.; CHIZHOV, O.S.

New approach to the identification of methylated monosaccharides.
Izv. AN SSSR. Ser. khim. no.11:2069-2070 N '63. (MIRA 17:1)

1. Institut khimii prirodnikh soedineniy AN SSSR.

KOCHETKOV, N.K.; BUDOVSKIY, E.I.; SIMUKOVA, N.A.

Primary structure of RNA. Interaction of RNA with o-methylhydroxylamine. Dokl. AN SSSR 153 no.3:597-600 N '63.

(MIRA 17:1)

1. Laboratoriya uglevodov i nukleotidov Instituta khimii prirodnkh soyedineniy AN SSSR. 2. Chlen-korrespondent AN SSSR (for Kochetkov).

DEREVITSKAYA, V.A.; ZHAROV, V.G.; KOCHETKOV, N.K.

Structure of group substances of blood. Proteolysis of the A group substance. Dokl. AN SSSR 153 no.2:342-345 N '63. (MIRA 16:12)

1. Institut khimii prirodnikh soedineniy AN SSSR. 2. Chlen-korrespondent AN SSSR (for Kochetkov).

KOCHETKOV, N. K.; DMITRIYEV, B. A.

Monosaccharides. Report No. 7: New synthetic path to higher
sugars. Izv AN SSR Ser Khim no. 4: (69-677) Ap '64. (MIRA 17:5)

1. Institut khimii prirodnikh soedineniy AN SSSR.

KOCHETKOV, N.K.; KHORLIN, A.Ya.; OVODOV, Yu.S.

Triterpenic saponins. Report No.7: Monosaccharide composition and size of the carbohydrate moiety of gypsoside. Izv.AN SSSR. Ser.khim. no.1:83-89 Ja '64.

Triterpenic saponins. Report No.8: Some data on the structure of the carbohydrate moiety of gypsoside. Ibid.:90-99 (MIRA 17:4)

1. Institut khimii prirodnikh soyedineniy AN SSSR.

DEREVITSKAYA, V.A.; LIKHOSHERSTOV, L.M.; KOCHETKOV, N.K.

Glycopeptides. Report No.7: Hydroxylaminolysis of o-aminoacyl derivatives of glucose. Izv. AN SSSR, Ser.khim, no.3:469-475 Nr '64.
(MIRA 17:4)

1. Institut khimii prirodnikh soedineniy AN SSSR.

KOCHETKOV, N.K.; USOV, A.I.

Monosaccharides. Report No.6: New path toward the formation of
deoxy sugars. Izv. AN SSSR. Ser.khim. no.3:475-482 Mr '64.
(MIRA 17:4)

1. Institut khimii prirodnikh soedineniy AN SSSR.

DEREVITSKAYA, V. A.; MOLODTSOV, N. V.; KOCHETKOV, N. K.

Glycopeptides. Report No. 8: Synthesis of N-galacturoamylamine.
Izv AN SSSR Ser Khim no. 4:677-680 Ap '64. (MIRA 17:5)

1. Institut khimii prirodnnykh soedineniy AN SSSR.

DELEVITSKAYA, V. A.; KIKOT', G. S.; KOCHETKOV, M. K.


Methylation of the blood group substance A. Izv AN SSSR.
Ser Khim no. 4:761-763 Ap '64. (MIRA 17:5)

1. Institut khimii prirodnnykh soyedineniy AN SSSR.

1. LUR'YE, S. I., KULESHOVA, M. G., KOCHETKOV, N. K.

2. USSR (600)

"N-Derivatives of Imidasol (Glicoxaline). I.", Zhur. Obshch, Khim., 9, No. 21, 1939. Lab. of the Tech. of Fine Organic Compounds imeni Professor Berkengayn, Moscow Inst. of Fine Chem. Tech. Received 1 Jun 1939.

9.  Report U-1626, 11 Jan 1952

<p>ca</p> <p>13</p> <p>Summary of the preliminary results in the Gabriel synthesis. A. A. Buz and M. K. Kerkovskiy. <i>J. Gen. Chem.</i> (U.S.S.R.) 30, 710-711 (1960). The Gabriel synthesis of primary amines the cleavage is best effected by the method of Ing and Mowbray (C. 4, 33, 78) by refluxing an equiv. amt. of a phthalimide compound and $H_2NCH_2CH_3$ in air for 1-3 hrs., expelling the air, digesting the residue with 10% HCl on a water bath and filtering off the hydrochloride. The amine is recovered from the filtrate in the usual manner. (See also...)</p>	
<p>Lab. Technology of Fine Organic Compounds in. Borkengapn, Moscow Inst. of Fine Chem. Technology.</p>	
<p>510.114 DETAILING LITERATURE CLASSIFICATION</p>	
<p>1000 SYMBOLS</p>	
<p>1000 SYMBOLS</p>	

KOCHETKOV, M. K.

"Mercury Orgaino Compunds. XXXIX. Reaction of 2-Chlorovinyl Compounds of Mercury with Bases."

Iz. Ak. Nauk SSSR, Otdel Khim. Nauk, 3, 1947/

Quinacrine compound of phenylthioethyl methyl ketone
with mercuric chloride. A. N. Tscherny and N. A.
Kochetov. *Izv. Akad. Nauk S.S.S.R., (Ser. Khim.)*
No. 10, 216 (1954). PhC₆H₅ (5 g) and HgCl₂ and
acid HgCl₂ soln. in acid. NaCl shaken 4 hrs., with fur-
ther addn. of 5 g. ketone, gave 9.7% adduct, 1-phenyl-1-
thio-2-(chloromethyl)-2-butene-3-one, m. 112-113° (from
H₂O), readily decarboxyl. by hot vap. sublimation. Treatment
with 60% H₂O gave a yellow oil, b. 120-20°, identified as
1-phenyl-1-thio-2-butene-3-one, (1); 2,4-dinitrophenyl-
hydrazide, m. 184-5°, decarboxyl. at 204-5°. Treatment of
the 11g. deriv. with 5% KI soln. with shaking gave 1.9g.
C₁₄H₁₁ and a 65% yield of 11g. in the next step.
acid. NaCl similarly gave 10.3% conversion, while Ac₂O
in dry C₆H₆ readily gave 1, as did H₂O, Ac₂O, and similar
reagents. PhC₆H₅ (4 g) in 20 ml. Ac₂O treated
at 4° with 1.22 g. dry HCl in Ac₂O, let stand 2 hrs., and
heated 1 hr. at 40° gave 2.7 g. 1. C. M. Kozlovskii.

KOCHETKOV, N. K., MBR., Inst. Organic Chem., Dept. Chem. Sci., Acad. Sci., -1948-.

"Mercury Organic Compounds. XLIII. Quasi-Complex Combination of Phenylethynyl
Methylketone and Corrosive Sublimate."

Is. Ak. Nauk SSSR, Otdel Khim. Nauk, 3, 1949;

Moscow Under Lenin State Univ. imeni M. V. Lomonosov, -1948-.

Organomercury compounds. XLIV. Properties of
mercury halomethylides and conjugation of simple bonds.
A. N. Nosovskiy and N. K. Kuchin, (Moscow
State Univ.), *Izv. Akad. Nauk S.S.S.R., Khim. Nauk*
1960, 887-91; cf. C.A. 45, 7413d. $-(CH_3)_2CH_2Hg$
(0.25 g.) (I) with 0.45 g. PhP in 20 ml. CH_2Cl_2 in a N atm
showed no tendency to react in 12 hrs.; on BrOH side.

save the same result. The Br analog of I is similarly in-
active, even on a steam bath, with PhP. Treating
 $(BrCH_2)_2Hg$ with 20% KCN in a N stream for 1 hr. led
to hydrolysis, which evolved $BrCH_2CH_3$, detected by gas-
age through alk. Hg cyanide soln.; which regenerated
 $(BrCH_2)_2Hg$; the residual soln. with H₂ gave 93%
H₂S; a similar result was obtained with 10% HCl at room
temp., while 20% aq. KI did not react at room temp. but
readily gave $BrCH_2CH_3$, detected as above, on warming 3.
hrs. on a steam bath (25% of the Hg recovered as the sub-
stance). $(BrCH_2)_2Hg$ (0 g.) with PhMgBr (from 4.5 g.
PhBr) in a N stream yielded Mg bromomethylide, as shown
by carbamation to $BrCH_2COONa$, m. 84-5° (0.5 g.); 1:1
PhBr was also recovered, as well as 0.3 g. PhMgBr
and 3.2 g. unreacted Hg deriv. $(PhCH_2)_2Hg$ (4 g.) with
PhMgBr (from 3.3 g. PhBr) on refluxing 3 hrs. gave after
carbonation 1.02 g. PhMgBr and 1.25 g. $PhCH_2COONa$,
m. 125°. Hence the Hg halomethylides do not possess
quadruple properties of $(CH_3)_2CH_2Hg$ deriv. since
they are unable to form a new multiple bond between the
C atoms, while the chloromethyl deriv. are able to do so.

XLV. Preparation of monochloromethylides and
sideproducts from acid acetates and their reactions, with
C- and O-alkylation and acylation. A. N. Nosovskiy,
I. P. Lashchenko, and E. M. Tsvetkov, *Izv. Akad. Nauk S.S.S.R., Khim. Nauk* 1960, 884-5.
Addn. of 4.5 g. CH_3COOAc with shaking to 10 g. Hg
acetate in 75 ml. CH_2Cl_2 , followed by addn. of 2.5 g. KCl (soln.
in 75 ml. CH_2Cl_2), gave 100% (chloromethyl)acetate
sideproduct, $CH_3CH_2CH_2COOAc$, m. 120-21°. Similarly
 CH_3COOAc gave 71.5% $CH_3CH_2CH_2COOAc$, m. 100-4°
(side to $CH_3CH_2CH_2COOAc$ at room temp.). Cyclohexyl acetate
(side to $CH_3CH_2CH_2COOAc$ at room temp.) (D. m. 104-5°
gave 80% β -chloromethylacetate (D. m. 104-5°
from H₂O), while cyclohexyl acetate gave 71% β -
(chloromethyl)acetate, m. 100-21° (from CH_2Cl_2).
Addn. of 7.5 g. $AcCl$ to 20 g. $CH_3CH_2CH_2COOAc$ in CH_2Cl_2
after 1 hr. 60% $CH_3CH_2CH_2COOAc$ and a residue which by its
soln. in cold HCl was shown to be free of $CH_3CH_2CH_2COOAc$.
 $CH_3CH_2CH_2COOAc$ with $AcCl$ (with a little quinoline added
after 1 hr. to remove unreacted $AcCl$) gave 60% $CH_3CH_2CH_2COOAc$
($CH_3CH_2CH_2COOAc$), while 1 similarly gave 57% cyclohexyl
acetate. Likewise reactions with $AcCl$, which required
6-8 hrs. heating to 80° for completion, gave, resp.: 60%
 $CH_3CH_2CH_2COOAc$, b. 73-5°, d_4^{20} 1.0779, d_4^{25} 1.068; 60%
 $CH_3CH_2CH_2COOAc$, b. 87°, d_4^{20} 1.0711, d_4^{25} 1.067; 60% cyclo-
hexyl acetate and benzene, b. 100-7°, d_4^{20} 1.0588, d_4^{25} 1.0508.
 $CH_3CH_2CH_2COOAc$ (20 g.) and 20 g. Ph_2CCl in CH_2Cl_2 by stand
overnight and refluxed 3 hrs. gave 65% Ph_2CClCH_2COOAc ,
m. 90-101° (from MeOH). Similarly $CH_3CH_2CH_2COOAc$ gave
67% Ph_2CClCH_2COOAc , m. 100-1° (from MeOH), while $CH_3CH_2CH_2COOAc$
gave 20% Ph_2CClCH_2COOAc , m. 104° (from MeOH). XLVI.
Addition of mercuric chloride to acetylene soln. and
ethers. A. N. Nosovskiy, N. K. Kuchin, and V. M.

Diastere. *AN.* 1949, 77-81. — H_2O with catalytic acid gives adducts which behave like quaternary amides. Addn. of 1 g. $MeCOONH_4$ to 10 ml. 90% H_2O in 20% $MeCOONH_4$ gave in 3 hrs. 91% $OCH_3C(CH_3)COONH_4$, m. 170-2° (decolor. from H_2O), sol. in $MeCO$, but not in $CHCl_3$ and CCl_4 . Similarly tetraol add gave 84% $MeCOOCH(CH_3)COONH_4$, m. 130° (from $MeCO$), while $MeCOONH_4$ gave 10% $OCH_3C(CH_3)COONH_4$, m. 141-2° (from 90% $MeCO$), and 8% tetraol gave in 12 hrs. 80% $MeCOOCH(CH_3)COONH_4$, m. 141-2° (from $MeCO$, other). Likewise, $PhCOONH_4$ gave in 3 days 74% $PhCOOCH(CH_3)COONH_4$ (I), m. 138-9° (from $MeCO$), while $(iCCO)_2NH$ gave in 3 days 73% $MeCOOCH(CH_3)COONH_4$ (II), m. 148.0-8.5° (from $MeCO$). I (28 g.) shaken 6 hrs. with 120 ml. 90% H_2O gave 11% $PhCOONH_4$, m. 148°, as well as some $trans$ - β -hydroxyamides, m. 148°, as well as some $trans$ - β -hydroxyamides, m. 148°, as well as some $trans$ - β -hydroxyamides, m. 148°. II after 18 hrs. gave 73% $PhCOONH_4$, m. 148°, by heating 10 hrs. with 2% H_2O . Treatment of $OCH_3C(CH_3)COONH_4$ with 5% KI 1 hr. gave 10% of Me in an acid, and yielded $ICH_3C(CH_3)COONH_4$; similarly, $MeCOOCH(CH_3)COONH_4$ in 3 hrs. gave 91.5% Me in an acid, and yielded tetraol acid, while $OCH_3C(CH_3)COONH_4$ in 3 days gave 80.5% Me in an acid, and yielded $ICH_3C(CH_3)COONH_4$, and $MeCOOCH(CH_3)COONH_4$ gave in 12 hrs. 88.5% Me in an acid, and yielded phenylmethylpyrazole.

base, while I gave in 3 days 70.50% Me in an acid, and yielded $PhCOONH_4$; in similar reactions with acid, $MeCOONH_4$ were obtained. $trans$ - β - H_2O Me in an acid, in 3 days, 80% Me in an acid, in 20 hrs., from the 1st 2 substances, while the 3rd failed to react appreciably. II in 3 weeks with 5% H_2O KI gave di- β -hydroxyamides, m. 27.5-1.5° (from H_2O), and some $(iCCO)_2NH$, while 20% KI in $MeCO$ gave instantaneously 18.9% of the β -hydroxyamides and 52% $MeCO$.

G. M. Kendall

MESEYANOV, A.N., KOCHETKOV, N.K.

Mercury Haloacetylides

Properties of mercury haloacetylides. Uch. zap. Mosk. un. no. 132, 1950.

9. Monthly List of Russian Accessions, Library of Congress, October 1957², Uncl.

NESEYANOV, N.K., KOCHETKOV, N.K.

Mercuric Chloride

Addition of mercuric chloride to acetylenic acids and esters. Uch. zap. Mosk.
un. no. 132, 1950.

9. Monthly List of Russian Accessions, Library of Congress, October 195², Uncl.

CA

11

Reaction of β -chlorovinyl ketones with alcohols. A. N. Nemeyanov, N. K. Kozlovsky, and M. I. Rybalkova (M. V. Lomonosov Inst. Chem., Moscow). *Izv. Akad. Nauk S.S.S.R., Khim. Nauk* 1961, 301-301. — RCOCH=CHCl with alcs. yields acetals of β -hydroxy ketones. Addn of 10 g. NaOH in 20 ml. abs. MeOH at under 15° to 20 g. MeCOCH=CHCl in 20 ml. abs. MeOH, then stirring 8 hr., gave after filtration of NaCl 70% β -acetoacetaldehyde di-Me acetal, bp 60°, d_4^{20} 0.9078, n_D^{20} 1.4231, which decolorizes in water and gives a red color with FeCl₃. A reaction run instead in the presence of dry HCl gave but 25.5% yield. Stirring the product with 10% HCl gave 62% β -acetoacetaldehyde, m. 103-3.5°, while treatment with NaOH in EtOH gave 3-methylpropanal (82%), isolated as the pure, m. 141°, free base, b. 504-5°. β -O₂NC₆H₄NH₂ in hot AcOH gave 44% 3-(β -nitrophenyl)-3-methylpropanal (I), m. 106°. The isomer with EtOH, as above, gave 87% β -acetoacetaldehyde di-Et acetal, bp 70-7°, d_4^{20} 0.8437, n_D^{20} 1.4229, while EtOH gave 80% di-Et acetal, bp 110-115°, d_4^{20} 0.9131, n_D^{20} 1.4320. Similarly EtOH with EtCOCH=CHCl gave 87% β -acetoacetaldehyde di-Et acetal, bp 69-70°, d_4^{20} 0.8367, n_D^{20} 1.4200; EtCOCH=CHCl gave 47% β -acetoacetaldehyde di-Et acetal, bp 64-6°, d_4^{20} 0.8228, n_D^{20} 1.4117. Addn. of 10 g. MeCOCH=CHCl to 2.5 g. Na in 120 g. PhOH at 60-6° and stirring 4 hrs. gave 31% Me 3-phenoxycarbaldehyde, bp 113-14°, d_4^{20} 1.0771, n_D^{20} 1.5410, and 20% β -acetoacetaldehyde di-Ph acetal (II), b. 100-0°, m. 31-2°. When the former product is warmed with 20% H₂O₂ in EtOH, PhOH readily, while treatment with β -O₂NC₆H₄NH₂ in AcOH yields I. II with the same reagent gives 64% I. (J. M. Kozlovsky)

1932

Reaction of Schering's ketone with alpha,beta-unsaturated compounds. A. N. Nemesy and H. K. Koryun

[illegible]

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10

Synthesis in the heterocyclic series based on 2-chlorovinyl ketones. A. N. Nosovskiy and N. E. Kargin (M.V. Lomonosov Moscow State Univ.). *Doklady Akad. Nauk S.S.S.R.* 77, 68-69 (1961); cf. C.A. 46, 1245b. $\text{MeCOCH}=\text{CHCl}$ with hydrazine, diazomethane, azo. azide, hydrazylamines, give a variety of heterocyclic compounds, in satisfactory yields. Thus, 10 g. $\text{MeCOCH}=\text{CHCl}$ in 20 ml. Et_2O added to a cooled soln. of $\text{C}_6\text{H}_5\text{N}_2$ (from 20 g. MeNO_2 , NCONH_2) in 200 ml. Et_2O , gave a cryst. prod. in 1 hr.; treating this with 5% Na_2CO_3 aq. soln. with Et_2O and evap., the Et_2O gave 67.5% 2-acetylpyrrole, m. 100-1° (from $\text{C}_6\text{H}_5\text{N}_2$), sol. in H_2O , Et_2O , Me_2CO , EtOH , partly sol. in petr. ether; 2-acetylpyrrole, m. 240-5°; *casim.*

m. 142-3°, *crystalline*, m. 204-5° (from H_2O , decamp.). Reducing 3.5 g. PhN_2 and 3 g. $\text{MeCOCH}=\text{CHCl}$ in 10 ml. C_6H_6 , 10 hrs. and evap. gave 20% 2-phenyl-2-acetyl-1,3,4,5-tetrahydropyridine, m. 170-6° (from dd. EtOH), sol. in Me_2CO , but EtOH ; *crystalline*, m. 223-3° (from EtOH); oxidation with aq. KMnO_4 yields an acid, m. 100-101°. Reducing 11.5 g. NH_4NO_3 and 18 g. $\text{MeCOCH}=\text{CHCl}$ in 200 ml. Me_2CO , treating the hot soln. with 100 g. CaCl_2 in hot aq. soln., and letting stand several days gave the *Cl* complex of 2-methylpyrrole, which on maturing with H_2O and thermal decamp. (distn.) and purification by Et_2O gave 8.3 g. pure 2-methylpyrrole, b. 119.5-20.0°, d_4^{20} 1.020, n_D^{20} 1.430; treatment with HClO_4 (Chiron, C.A. 3, 190) showed the presence of 84% 2-acetyl. $\text{MeCOCH}=\text{CHCl}$ (23 g.) and 60 g. $\text{ArCH}_2\text{CNH}_2$ in 75 ml. EtOH acid. with NH_4OH , kept 1 hr. at room temp. and reduced 3 hrs. gave upon filtration and distn., 20% 72 2,6-dimethylpyridine, b. 111-17°, d_4^{20} 1.015, n_D^{20} 1.420; *pure*, m. 137°, *crystalline*, m. 142-3°. G. M. Kondrat

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Reaction of ethyl 2-chloroethyl ketone with phenols.
N. K. Kuznetsov, M. I. Rybinova, and A. N. Semenov.
M. V. Leningrad State Univ. Moscow. *Doklady
Akad. Nauk S.S.S.R.* 79, 799-801 (1971). $\text{HCOCH}_2\text{CHCl}$
with phenols in the presence of NaOH in various mediums
(H_2O , dioxane, carbon phenol) form $\text{RCOCH}_2\text{CHOAr}$;
if the reaction is prolonged, $\text{RCOCH}_2\text{CH(OAr)}_2$ are ob-
tained. The best yields are obtained in the cold with an
equimolar reagent ratio in 4-6 hr. runs; dioxane gives
lower yields than does an aq. medium. The reaction is
fast done in 20% aq. NaOH, which gives 80-85% yields.
Thus prep. were: $\text{MeCOCH}_2\text{CH(OAr)}_2$, $\text{Ar} = \text{p}$, b. 113-114°, n_D²⁰
1.3610, d₄²⁰ 1.0771; $\text{MeCOCH}_2\text{CH(OAr)}_2$, $\text{Ar} = \text{p}$, b. 127-28°,
n_D²⁰ 1.3614, d₄²⁰ 1.0740; $\text{EtCOCH}_2\text{CH(OAr)}_2$, b. 134-35°, n_D²⁰
1.3621, d₄²⁰ 1.0740; $\text{iso-EtCOCH}_2\text{CH(OAr)}_2$, b. 111-12°, n_D²⁰
1.3510, d₄²⁰ 1.0734; and $\text{MeCOCH}_2\text{CH(OAr)}_2$, $\text{Ar} = \text{m}$, b. 105-6°,
n_D²⁰ 1.3510, d₄²⁰ 1.0734; and $\text{MeCOCH}_2\text{CH(OAr)}_2$, $\text{Ar} = \text{m}$,
b. 105-6°, n_D²⁰ 1.3510, d₄²⁰ 1.0734. $\text{MeCOCH}_2\text{CH(OAr)}_2$,
 $\text{Ar} = \text{m}$, also formed in this reaction, however, was 10%
of the total. $\text{MeCOCH}_2\text{CH(OAr)}_2$, needles, which with acids yields
the free HO compd., unstable in air. If the reaction is run
in dioxane the proportions of the 2 products are effectively
reversed. The structural proof was obtained by treatment
with $\text{FeCl}_3\text{-HCl}$ in AcOH-HCl , yielding 2-methylphenol-
(2,1-b)pyridine formamide (C.A. numbering), green, m.
145-6° (from AcOH). Addn. of AcOH-CH(OAr)_2 to
 NaOH-HCl gave after 24 hrs. 20% AcOH-CH(OAr)_2 , b.
78-79°, n_D²⁰ 1.3512. (1) M. K. Kuznetsov

KOCHETKOV, N.K.; KHSMEYANOV, A.N.; SEMENOV, N.A.

Synthesis of isoxasoles from 2-chlorovinyl ketones. Bull. Acad. Sci.,
Div. Chem. Sci. '52, 97-102 [Engl. translation].
(CA 47 no.19:9964 '53)

RESMEYANOV, A.N.; KOCHETKOV, N.K.; KARPITSKIY, M. Ya.; ALEXANDROVA, G.V.

Diene synthesis with 2-chlorovinyl ketones. Condensation with cyclopentadiene. Doklady Akad. Nauk S.S.S.R. 82, 409-12 '52. (MLRA 5:3) (CA 47 no.14:6876 '53)

1. M.V.Lomonosov State Univ., Moscow.

KOCHETKOV, N.K.

Synthesis of substituted hydroxypyridines from β -chlorovinyl ketones. C.R.
Acad.Sci. U.S.S.R. '52, 84, 289-292. (MLA 516)
(BA -All Ap '53:557)

KOCHETKOV, N. K.

Chemical Abst.
Vol. 48 No. 4
Feb. 25, 1954
Organic Chemistry

Some transformations of 2-acetyl-3-chlorobicyclo[2.2.1]heptane. N. K. Kochetkov and M. A. Kuznetsov. *Dokl. Akad. Nauk S.S.S.R.* 85, 801-2 (1953); cf. C.A. 47, 6076, —8. Acetyl-3-chlorobicyclo[2.2.1]heptane (I) (40 g.) in 400 ml. H₂O, treated in 1 hr. with 100 ml. 10% NaOH and stirred 6 hrs. gave 44% 2-acetylbicyclo[2.2.1]heptane, b_p 84-8°, d₄ 1.0118, n_D 1.4672, which polymerizes on standing and rapidly reduces KMnO₄; 3,3-dinitrophenylhydrazones, m. 151° (from AcOH). Hydrogenation over Pd-CuCl₂ yields 2-acetylbicyclo[2.2.1]heptane, b_p 89-91° (crude), b_p 80-8°, d₄ 0.9971, n_D 1.4772; semicarbazone, m. 188-189° (cf. Plato and Menovick, *Izv. Akad. Nauk S.S.S.R.*, 1948, 219). I (15 g.) in EtOH treated with ice cooling with 5 g. NaOH in EtOH, diss., and extd. with F.O. gave 80% 2-acetyl-3-ethoxybicyclo[2.2.1]heptane, b_p 102-105°, d₄ 1.0284, n_D 1.4759; similarly was obtained 80% 3-MeO analog, b_p 88-90°, d₄ 1.0296, n_D 1.4825. I heated with 80% HCO₂H and NaOCH₃ 16 hrs. at 100° gave 47% 2-acetylbicyclo[2.2.1]heptane-3-ol formate, b_p 108-11°, d₄ 1.1317, n_D 1.4981; corresponding acetate, prep. similarly, b_p 118-20°, d₄ 1.1180, n_D 1.4838. O. M. Kametov

③

4-21-54

KOCHETKOV, N.K.; ALEKSANDROVA, G.V.

Diene synthesis with 2-chlorovinyl ketones. Condensation with
aliphatic dienes. Doklady Akad. Nauk S.S.S.R. 85, 1033-6 '52.
(CA 47 no.15:7449 '53) (MLRA 5:9)

1. M.V. Lomonosov State Univ., Moscow.

KOCHETKOV N. K.

USSR/Chemistry - Bismuth

Aug 52

"The Charging Effect," L. M. Kul'bert, I. S. Mustafin and N. K. Kochetkov,
Saratov State U imeni N. O. Chernyshevskiy

"Dan SSSR" Vol 85, No 6, pp 1285-1288

The limits of applicability of the charging effect in studying the sensitivity of detection of Bi and Sb with the aid of nitrogen contg heterocyclic compds and their N-alkylates was studied. The sensitivity of such reagents under stable conditions depends on the chem nature of the charging group and its position in the mol as well as the mol wt. Presented by Acad A. N. Mesnyanov
21 June 52

(CA 47 no. 17: 8576 '53)

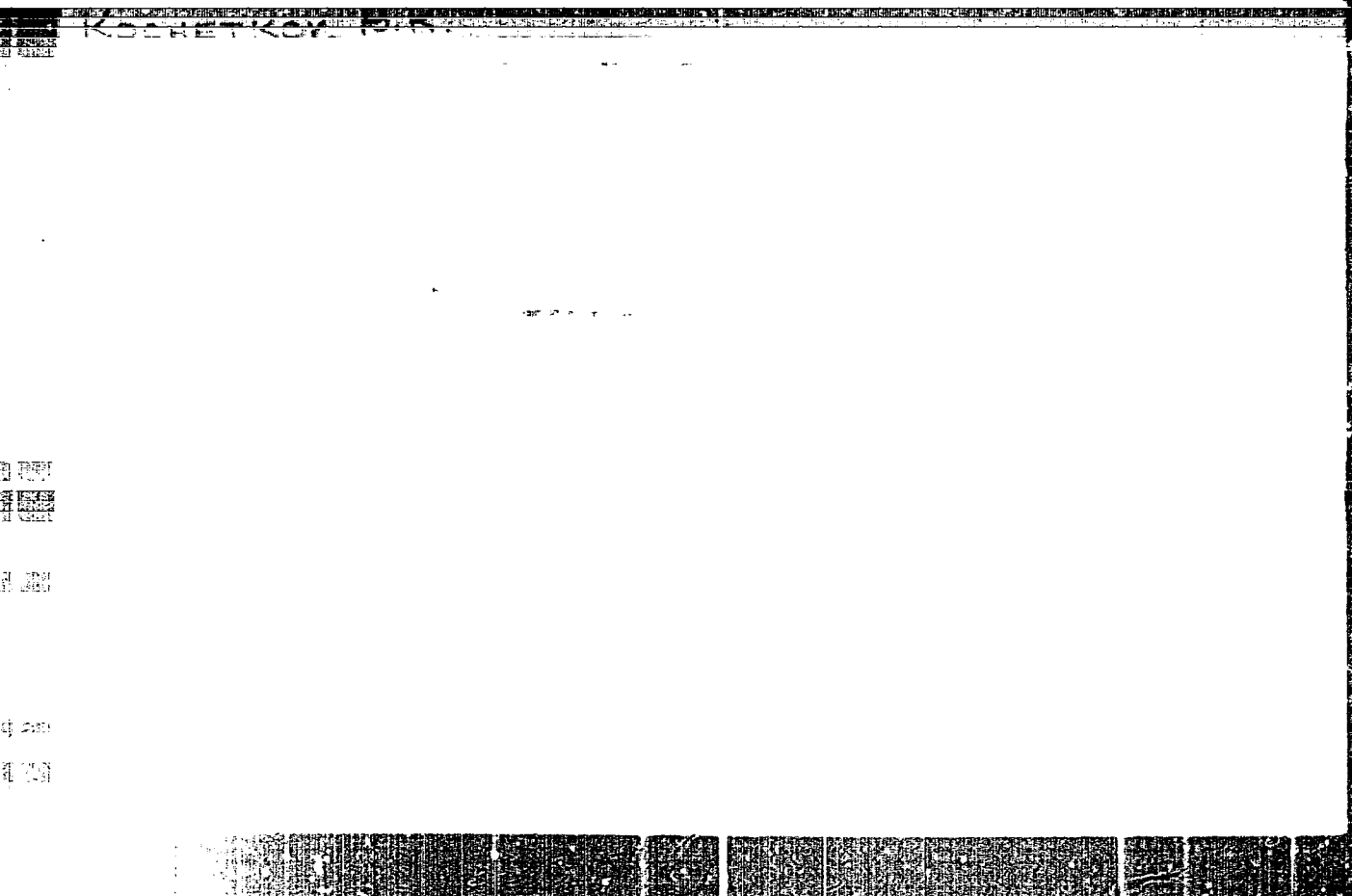
23879

ELDERFIELD, Robert Cooley, 1904- ; YUR'YEV, Yu.K., professor [redaktor]
LUTSENKO, I.F.; RYUTOV, O.A.; KOCHETKOV, N.K. [redaktors].

[Heterocyclic compounds] Geterotsiklicheskie soedineniia. Perevod s ang-
liiskogo I.F.Lutsenko, O.A.Ryutova, N.K.Kochetkova, pod red. IU.K.IUr'eva.
Moskva, Izd-vo inostrannoi lit-ry, 1953- . (MLA 6:8)
(Heterocyclic compounds)

"APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723510014-8



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APPROVED FOR RELEASE: 09/18/2001

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[illegible]

CH₃COCH₃ (100%); IR (KBr): 1715 (C=O), 1640 (C=C), 1540 (C=C), 1450 (C=C), 1380 (C=C), 1320 (C=C), 1280 (C=C), 1240 (C=C), 1200 (C=C), 1160 (C=C), 1120 (C=C), 1080 (C=C), 1040 (C=C), 1000 (C=C), 960 (C=C), 920 (C=C), 880 (C=C), 840 (C=C), 800 (C=C), 760 (C=C), 720 (C=C), 680 (C=C), 640 (C=C), 600 (C=C), 560 (C=C), 520 (C=C), 480 (C=C), 440 (C=C), 400 (C=C), 360 (C=C), 320 (C=C), 280 (C=C), 240 (C=C), 200 (C=C), 160 (C=C), 120 (C=C), 80 (C=C), 40 (C=C), 0 (C=C); ¹H NMR (CDCl₃): 7.2 (d, 2H, H₂), 6.8 (d, 2H, H₂), 6.4 (d, 2H, H₂), 6.0 (d, 2H, H₂), 5.6 (d, 2H, H₂), 5.2 (d, 2H, H₂), 4.8 (d, 2H, H₂), 4.4 (d, 2H, H₂), 4.0 (d, 2H, H₂), 3.6 (d, 2H, H₂), 3.2 (d, 2H, H₂), 2.8 (d, 2H, H₂), 2.4 (d, 2H, H₂), 2.0 (d, 2H, H₂), 1.6 (d, 2H, H₂), 1.2 (d, 2H, H₂), 0.8 (d, 2H, H₂), 0.4 (d, 2H, H₂), 0.0 (d, 2H, H₂); ¹³C NMR (CDCl₃): 168.0 (C=O), 164.0 (C=C), 160.0 (C=C), 156.0 (C=C), 152.0 (C=C), 148.0 (C=C), 144.0 (C=C), 140.0 (C=C), 136.0 (C=C), 132.0 (C=C), 128.0 (C=C), 124.0 (C=C), 120.0 (C=C), 116.0 (C=C), 112.0 (C=C), 108.0 (C=C), 104.0 (C=C), 100.0 (C=C), 96.0 (C=C), 92.0 (C=C), 88.0 (C=C), 84.0 (C=C), 80.0 (C=C), 76.0 (C=C), 72.0 (C=C), 68.0 (C=C), 64.0 (C=C), 60.0 (C=C), 56.0 (C=C), 52.0 (C=C), 48.0 (C=C), 44.0 (C=C), 40.0 (C=C), 36.0 (C=C), 32.0 (C=C), 28.0 (C=C), 24.0 (C=C), 20.0 (C=C), 16.0 (C=C), 12.0 (C=C), 8.0 (C=C), 4.0 (C=C), 0.0 (C=C).

The picrates of the amino deriva. are relatively unstable
G. M. Kozlov

at 12:00 PM, 08/05/08

me

NESMEYANOV, A.N.; KOCHETKOV, N.K.; RYBINSKAYA, M.I.

Synthesis of 2-alkyl naphtho- and 2-alkyl benzopyrylium salts on the basis of β -chlorovinyl ketones. Izv. AN SSSR Otd.khim.nauk no.3:479-483 My-Je '53.
(MLBA 6:8)

1. Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova.
(Benzopyrylium compounds)

"APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723510014-8

КОСМЕТОЛ, НК

APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723510014-8"

CATALYSTS

Chemical Abstr.
Vol. 48 No. 8
Apr. 25, 1954
Organic Chemistry

A mixture of α -olefins of the same boiling range as the β -olefins (C. V. Langer and W. H. R. R. R. 2180, *Chem. Abstr.*, 25, 700-31100) + 16.50 g. PbCl_2 in 100 ml. Et_2O was added 7.5 g. Na with cooling and after the subsidence of the initial reaction the mixt. was refluxed 1 hr., treated with cooling over 1 hr. with 85 g. $\text{O}_2\text{C}_2\text{H}_5\text{COCl}$ in Et_2O , stirred (steady 4 hrs. at room temp.), treated with 8% HCl , stirred 0.5 hr., and the org. layer washed with 1% Na_2CO_3 in the cold, giving 9 g. unsaturated PbCl_2CH and 16 g. 1-phenyl-1-chloro-1-bromo-3-one (I), bp. 130-8°, m. 37° (from petr. ether); 1,4-dinitrophenylhydrazones, m. 170° (from AcOH). Similarly MeCHBrCOH gave 1-phenyl-1-bromo-1-phenyl-3-one, bp. 143-8°; 1,4-dinitrophenylhydrazones, m. 188-9°. EtCHBrCOH gave 1-phenyl-1-bromo-1-hexyl-3-one, bp. 167.5-8.2°; 1,4-dinitrophenylhydrazones, m. 160-4°. MeCHBrCOH gave 1-phenyl-1-bromo-1-methyl-1-phenyl-3-one, bp. 148-8°; 1,4-dinitrophenylhydrazones, m. 173.5-4°. I (7.5 g.) in 150 ml. EtOH was treated with 80 ml. AcOH, then 13.5 g. Zn dust added slowly at 40°, and the mixt. heated to 50° for completion of the reaction, and filtered; the concd. filtrate, which formed 2 layers, was extd. with Et_2O and the dried ext. slowly deposited 0.8 g. solid, m. 100.8°. Identified as $(\text{CH}_3)_2\text{CH}_2\text{C}_6\text{H}_4$ [cf. *Marrian and Kamberbach, Ber.*, 79, 160 (1906)]. Dist. of the filtrate gave several fractions of which one, bp. 180-200°, gave more of the above diene, while another, bp. 110-118°, yielded $\text{PbCl}_2\text{CH}_2\text{C}_6\text{H}_4\text{C}_6\text{H}_4\text{CONHCONH}_2$, m. 141-3°. In 175 ml. 70% MeOH (8 g.) I treated over 1 hr. with 2.5 g. Zn dust simultaneously with 30 ml. 25% AcOH; and the rekt. shaken 1 hr. yielded 53% $\text{PbCl}_2\text{C}_6\text{H}_4$, bp. 110-11°, n_D 1.5743, d₄ 1.0257; 1,4-dinitrophenylhydrazones, m. 188-9°. The hexone readily yielded 1-phenyl-3-methylpyrazolone, m. 123-4° [cf. *Mourou and Brachin, Bull. soc. chim.*, [3], 33, 167-81 (1903)]. The acetylenic halo-hexenes are very reactive to alcohols, yielding tars. They are fairly stable to acids. Heating I with HCl , H_2SO_4 gave red-brown color with green fluorescence.

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CIA-RDP86-00513R000723510014-8"

Condensation of Acetylacetyl ketones with phenol ethers.
A. N. Mironovskiy, M. K. Kozlovskiy, and L. A. Maslov

Synthetic State Univ., Moscow. Doklady Akad. Nauk S.S.S.R. 61, 154 (1968).
With catalysts by SnCl_4 , ethoxyacetyl ketones and phenol ethers in $\text{C}_6\text{H}_5\text{OH}$ solution. Thus, 20 g $\text{MeCOCH}_2\text{CH}_2\text{COCH}_3$ and 25 g MeOPh in 80 ml $\text{C}_6\text{H}_5\text{OH}$ treated with ice cooling over 1 hr with 10 g SnCl_4 (no HCl evolved); the mixt. stirred 20 min, dil. with 150 ml EtOH , 150 ml H_2O added, and the org. layer washed with Na_2CO_3 sol. dried, gave 14% $p\text{-MeOC}_6\text{H}_4\text{CH}_2\text{CH}_2\text{COCH}_3$, m. 72-5° (from EtOH). $p\text{-MeOC}_6\text{H}_4\text{CH}_2\text{CH}_2\text{COCH}_3$, m. 72-5° (from EtOH). $p\text{-MeOC}_6\text{H}_4\text{CH}_2\text{CH}_2\text{COCH}_3$, m. 72-5° (from EtOH). Oxidation with KMnO_4 gave pure anisic acid, m. 181-2°. Similarly EtOPh gave $p\text{-EtOC}_6\text{H}_4\text{CH}_2\text{CH}_2\text{COCH}_3$, 65.6%, m. 64-5°. $\text{MeCOCH}_2\text{CH}_2\text{COCH}_3$ and MeOPh gave 67% $p\text{-MeOC}_6\text{H}_4\text{CH}_2\text{CH}_2\text{COCH}_3$, m. 120-2°, m. 17° (from pet. ether), while $\text{AcCOCH}_2\text{CH}_2\text{COCH}_3$ gave 62% $p\text{-MeOC}_6\text{H}_4\text{CH}_2\text{CH}_2\text{COCH}_3$, m. 12-3° (from EtOH). $\text{MeCOCH}_2\text{CH}_2\text{COCH}_3$ and $p\text{-MeOC}_6\text{H}_4\text{OMe}$ similarly gave 4.5% $p\text{-MeOC}_6\text{H}_4\text{CH}_2\text{CH}_2\text{COCH}_3$, m. 147-6°, m. 14° (from pet. ether), oxidized with KMnO_4 to $p\text{-MeOC}_6\text{H}_4\text{CO}_2\text{H}$, m. 262-3°, m. $\text{MeCOCH}_2\text{CH}_2\text{COCH}_3$ and $\text{MeCOCH}_2\text{CH}_2\text{COCH}_3$ gave 14% $p\text{-MeOC}_6\text{H}_4\text{CH}_2\text{CH}_2\text{COCH}_3$, m. 120-2°, m. 62° (from pet. ether), while $\text{MeCOCH}_2\text{CH}_2\text{COCH}_3$ gave 12.5% $p\text{-MeOC}_6\text{H}_4\text{CH}_2\text{CH}_2\text{COCH}_3$, m. 57-8° (from pet. ether). Thionaphene and $\text{MeCOCH}_2\text{CH}_2\text{COCH}_3$ similarly gave 74% $p\text{-MeOC}_6\text{H}_4\text{CH}_2\text{CH}_2\text{COCH}_3$, m. 117-17.5°, m. 22-4.5° (from pet. ether). (L. M. Kozlovskiy)

KOCHETKOV, N.K.

NIDENFIELD, Robert, G.; LUTENKO, I.F. [translator]; KOCHETKOV, N.K.,
[translator]; TOLSTAYA, T.P. [translator]; KOCHETKOV, N.K.
[translator]; YUR'EV, Yu.K., professor, redaktor; SATAROVA, N.V.,
redaktor; GHRASINOVA, Ye.S., tekhnicheskii redaktor

[Heterocyclic compounds] Geterotsiklicheskie soedineniia. Perevod
s angliiskogo I.F.Lutenko, i dr. Pod redaktsiei IYU.K.IYU'eva.
Moskva, Izd-vo inostranoi lit-ry. Vol.2. 1954. 432 p. (MLRA 7:10)
(Heterocyclic compounds)

**MILDERFELD, R.; KOCHETKOVA, N.K. [translator]; LUTSENKO, I.F. [translator];
KONIRAT'YEVA, O.YA. [translator]; YUR'YEV, Yu.K., professor, redaktor;
SHABAROV, Yu.S., redaktor; GHERASIMOVA, Ye.S., tekhnicheskii redaktor**

**[Heterocyclic compounds. Translated from the English] Geterotsikli-
cheskie soedineniia. Pod red. R.Ml'derfilda. Perevod s angliiskogo
N.K.Kochetkova, I.F.Lutsenko, O.IA.Konirat'evol. Pod red. IU.K.
IUr'eva. Moskva, Izd-vo inostrannoi lit-ry. Vol.3. 1954. 357 p.
(Heterocyclic compounds) (MIRA 8:4)**

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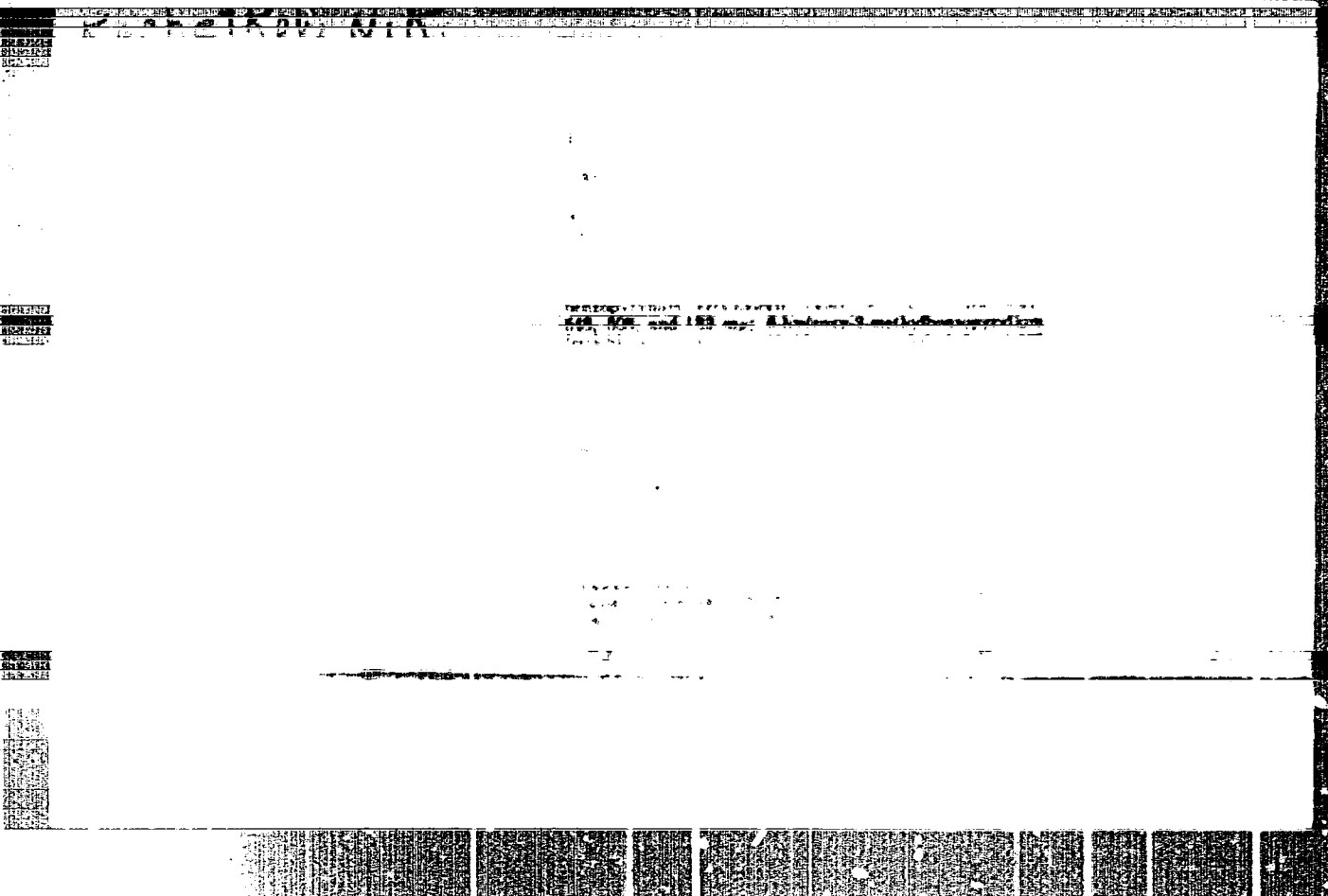
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CIA-RDP86-00513R000723510014-8"

ELDERFIELD, Robert G.; REUTOV, O.A., [translator]; LUTSENKO, I.F.
[translator]; KOCHNEV, N.K. [translator]; KONDRAT'YNA, O.Ya.
[translator]; IUR'EV, I.K., professor, redaktor; SHABAROV, Yu.S.
redaktor; OGANDEKHANOVA, N.A., redaktor; GHRASIMOVA, Ye.S.,
tekhnicheskii redaktor.

[Heterocyclic compounds. Translated from the English] Geterotsi-
klicheskie soedineniia. Perevod s angliiskogo O.A. Reutova, i dr.
Pod red. Iu.K. Iur'eva. Moskva, Izd-vo inostrannoi lit-ry, Vol.
4. 1955. 538 p. (MLA 8:11)
(Heterocyclic compounds)

Kochetkov N. K.

✓ Reaction of allyl 2-chlorovinyl ketone with ethyl aceto-
acetic ester. N. K. Kochetkov, I. I. Kiselev, and
D. V. Vlasov, *Dokl. Akad. Nauk SSSR* (Engl. transl.)
1955, 72, 24 (Engl. translation) — See C 4 55, 8132
R. S. K.

element

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KOCHETOV, N. K.

5

Chem Reaction of 2-chloro-1,4-naphthoquinone with anthracene. 1 3 M. A. YOUTZ
N. K. Kochetov, M. I. Gubanov, and N. I. Kiselev
Izv. Akad. Nauk SSSR, Div. Chem. Sci. 1955, 1450
(Engl. translation) - See C.A. 50, 9561 (1956) D. M. R.

2 copies

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Kochetkov N. K.

Reaction of 2,3-dibromoisobutylene with anthracene
A. N. Kozlov, M. I. Kozlov, and N. K. Kochetkov
Moscow State Univ., Moscow, U.S.S.R.
Zh. Obshch. Khim. 33, 1000, 1963, 411-22

When 10 g. Br_2 was added to 10 g. anthracene and 7.5 g. $\text{AcOH}:\text{CHCl}_3$ in 100 ml. CCl_4 in 1 hr., and the mixt. was stirred 8 hrs., then treated with dil. HCl with cooling, the org. layer yielded 67.4% 1-chloro-2-acetyl-1,2-endol-9,10-dibenzanthracene (I) (12-acetyl-11-chloro-9,10-dihydro-9,10-ethanoanthracene) (I) m. 145° (from AcOH), decomp. 200° to anthracene, mp. 274° (from AcOH). Similarly from the appropriate $\text{RCOCH}:\text{CHCl}_3$ were prepd. the following 12- RCO analogs of I (8-9% yield, and m.p. given): $\text{R} = \text{H}$, 4, 6, 8-4° (from Me_2CO) (decomp. 200°), $\text{R} = \text{CH}_3$, 50-1-62° (from Me_2CO) (decomp. 200°), $\text{R} = \text{C}_2\text{H}_5$, 148-6° (from AcOH and Me_2CO). $\text{Br}_2/\text{CHCl}_3$ added to 3 g. anthracene in 60 ml. xylene, the refluxing mixt. treated 10 hrs. with dry HCl , the unreacted hydrocarbon removed, and the soln. evapd. yielded 15.8% II, identical with the above sample. I treated with pond. NaOH in Et_2O 10 hrs. gave 78.9% 1-acetyl-1,2-endol-9,10-dihydroanthracene (III), m. 174-5° (from Me_2CO). Similarly were obtained: the 1- PrCO , m. 152-1° (from Me_2CO), and 1-decyl analog, m. 103, mp. 150-0. II (3.3 g.) added to 50 ml. Et_3NH and

(cont.)

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REACTION OF 2-CHLOROVINYL...

reduced 2 hrs gave, after evapn and extr. with 5% HCl
and Et₂O, 20.3% of the 1-hr analog of III, m. 102-8°
(from Me₂CO), while the eq. with gave 64.3% 1-Et₂N
analog of II, m. 52-4° (from eq. MeOH) (pure, m. 107-
8°). I (0.84 g) shaken with 0.6 g NaOH in 15 ml EtOH
2 hrs gave 87.8% 1-Et₂O analog of I, m. 102-4° (from
Me₂CO). G. M. Knochen

$\frac{1}{2}$

204

Kochetkov, N. K.

USSR/ Chemistry - Synthesis

Card 1/1 Pub. 40 - 23/27

Authors : Nesmeyanov, A. N.; Kochetkov, N. K.; and Dombrovskiy, Ya. V.

Title : Beta-aminovinyl ketones. Part 3. Synthesis of alkyl-beta-aminovinyl ketones

Periodical : Izv. AN SSSR. Otd. khim. nauk 1, 179-181, Jan-Feb 1955

Abstract : Brief announcement is made on the development of a new method for the synthesis of alkyl-beta-aminovinyl ketones from beta-chlorovinyl ketones with a yield of 78 - 84% of the theoretical. This method makes alkyl-beta-aminovinyl ketones easily accessible compounds and makes it possible to use these ketones in organic synthesis. The physico-chemical properties of alkyl-beta-aminovinyl ketones are described. Seven references: 1 USSR, 3 German, 2 French and 1 USA (1924-1953). Table.

Institution: The M. V. Lomonosov State University, Moscow

Submitted : October 27, 1954

KRECHYANOV, A.N.; KOCHETKOV, N.K.; RYBINSKAYA, M.I.; UOLOVA, B.V.

Certain reactions of alkyl-*p*-phenoxyvinyl ketones. Izv. AN SSSR.
Otd.khim.nauk no.4:649-656 J1-Ag '55. (MLBA 9:1)

1.Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova.
(Ketenes)

KOCHETKOV, N.N.; KUDRYASHOV, L.I.; KUSNETSOV, A.N.

The reactions of alkyl- β -chlorovinyl ketenes with ethyl acetate.
Izv. AN SSSR, Otd. khim. nauk no. 5:809-816 8-0 '55. (MIRA 9:1)

1. Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova.
(Ketenae) (Acetoacetic acid)

Subject : USSR/Chemistry

Card 1/1 Pub. 119 - 3/6

Author : Kochetkov, N. K., (Moscow)

Title : Chemistry of β -chlorovinyl ketones

Periodical : Usp. khim., 23, no. 1, 32-51, 1955

Abstract : The synthesis and chemical behavior of alkyl- β -chlorovinyl ketones are described. Their use in the synthesis of aliphatic, alicyclic, and heterocyclic compounds is reviewed. A table illustrating the transformations of β -chlorovinyl ketones is included. 42 references (28 Russian: 1894-1954).

Institution : None

Submitted : No date

APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723510014-8"

Example series II. Reactions of 1-chloro-2-methyl-2-butene

NAME: Y. Kishikawa and A. Ya. Kiselev (Moscow)
 ADDRESS: Zhuravskaya Str. 15, 1214, USSR
 PHONE: 241-17-00 Bldg. 9, KSCN, 70 m. MOBL.

and 1.0 g (2.0 mmole) of the acid chloride (I) was followed by 10 ml of dry diethyl ether. The mixture was stirred for 15 min and then filtered. The white solid was washed with 10 ml of dry diethyl ether. The combined filtrate and washings were dried over CaH_2 and then concentrated under reduced pressure to give 0.5 g (50%) of the acid (II). The mother liquor was concentrated and the residue was recrystallized from dry diethyl ether to give an additional 0.1 g (10%) of the acid (II). Total yield 0.6 g (60%). mp 147–148°C. $[\alpha]_D^{25} +12.5$ (c 1.0, CHCl_3). IR (KBr): 3400 (broad), 1680, 1640, 1580, 1540, 1480, 1450, 1380, 1340, 1280, 1240, 1180, 1140, 1100, 1060, 1020, 1000, 960, 920, 880, 840, 800, 760, 720, 680, 640, 600, 560, 520, 480, 440, 400, 360, 320, 280, 240, 200, 160, 120, 80 cm^{-1} . ^1H NMR (CDCl₃): δ 1.0 (t, 3H, CH₃), 1.5 (d, 3H, CH₃), 2.0 (s, 3H, CH₃), 2.5 (s, 3H, CH₃), 3.0 (s, 3H, CH₃), 3.5 (s, 3H, CH₃), 4.0 (s, 3H, CH₃), 4.5 (s, 3H, CH₃), 5.0 (s, 3H, CH₃), 5.5 (s, 3H, CH₃), 6.0 (s, 3H, CH₃), 6.5 (s, 3H, CH₃), 7.0 (s, 3H, CH₃), 7.5 (s, 3H, CH₃), 8.0 (s, 3H, CH₃), 8.5 (s, 3H, CH₃), 9.0 (s, 3H, CH₃), 9.5 (s, 3H, CH₃), 10.0 (s, 3H, CH₃), 10.5 (s, 3H, CH₃), 11.0 (s, 3H, CH₃), 11.5 (s, 3H, CH₃), 12.0 (s, 3H, CH₃), 12.5 (s, 3H, CH₃), 13.0 (s, 3H, CH₃), 13.5 (s, 3H, CH₃), 14.0 (s, 3H, CH₃), 14.5 (s, 3H, CH₃), 15.0 (s, 3H, CH₃), 15.5 (s, 3H, CH₃), 16.0 (s, 3H, CH₃), 16.5 (s, 3H, CH₃), 17.0 (s, 3H, CH₃), 17.5 (s, 3H, CH₃), 18.0 (s, 3H, CH₃), 18.5 (s, 3H, CH₃), 19.0 (s, 3H, CH₃), 19.5 (s, 3H, CH₃), 20.0 (s, 3H, CH₃), 20.5 (s, 3H, CH₃), 21.0 (s, 3H, CH₃), 21.5 (s, 3H, CH₃), 22.0 (s, 3H, CH₃), 22.5 (s, 3H, CH₃), 23.0 (s, 3H, CH₃), 23.5 (s, 3H, CH₃), 24.0 (s, 3H, CH₃), 24.5 (s, 3H, CH₃), 25.0 (s, 3H, CH₃), 25.5 (s, 3H, CH₃), 26.0 (s, 3H, CH₃), 26.5 (s, 3H, CH₃), 27.0 (s, 3H, CH₃), 27.5 (s, 3H, CH₃), 28.0 (s, 3H, CH₃), 28.5 (s, 3H, CH₃), 29.0 (s, 3H, CH₃), 29.5 (s, 3H, CH₃), 30.0 (s, 3H, CH₃), 30.5 (s, 3H, CH₃), 31.0 (s, 3H, CH₃), 31.5 (s, 3H, CH₃), 32.0 (s, 3H, CH₃), 32.5 (s, 3H, CH₃), 33.0 (s, 3H, CH₃), 33.5 (s, 3H, CH₃), 34.0 (s, 3H, CH₃), 34.5 (s, 3H, CH₃), 35.0 (s, 3H, CH₃), 35.5 (s, 3H, CH₃), 36.0 (s, 3H, CH₃), 36.5 (s, 3H, CH₃), 37.0 (s, 3H, CH₃), 37.5 (s, 3H, CH₃), 38.0 (s, 3H, CH₃), 38.5 (s, 3H, CH₃), 39.0 (s, 3H, CH₃), 39.5 (s, 3H, CH₃), 40.0 (s, 3H, CH₃), 40.5 (s, 3H, CH₃), 41.0 (s, 3H, CH₃), 41.5 (s, 3H, CH₃), 42.0 (s, 3H, CH₃), 42.5 (s, 3H, CH₃), 43.0 (s, 3H, CH₃), 43.5 (s, 3H, CH₃), 44.0 (s, 3H, CH₃), 44.5 (s, 3H, CH₃), 45.0 (s, 3H, CH₃), 45.5 (s, 3H, CH₃), 46.0 (s, 3H, CH₃), 46.5 (s, 3H, CH₃), 47.0 (s, 3H, CH₃), 47.5 (s, 3H, CH₃), 48.0 (s, 3H, CH₃), 48.5 (s, 3H, CH₃), 49.0 (s, 3H, CH₃), 49.5 (s, 3H, CH₃), 50.0 (s, 3H, CH₃), 50.5 (s, 3H, CH₃), 51.0 (s, 3H, CH₃), 51.5 (s, 3H, CH₃), 52.0 (s, 3H, CH₃), 52.5 (s, 3H, CH₃), 53.0 (s, 3H, CH₃), 53.5 (s, 3H, CH₃), 54.0 (s, 3H, CH₃), 54.5 (s, 3H, CH₃), 55.0 (s, 3H, CH₃), 55.5 (s, 3H, CH₃), 56.0 (s, 3H, CH₃), 56.5 (s, 3H, CH₃), 57.0 (s, 3H, CH₃), 57.5 (s, 3H, CH₃), 58.0 (s, 3H, CH₃), 58.5 (s, 3H, CH₃), 59.0 (s, 3H, CH₃), 59.5 (s, 3H, CH₃), 60.0 (s, 3H, CH₃), 60.5 (s, 3H, CH₃), 61.0 (s, 3H, CH₃), 61.5 (s, 3H, CH₃), 62.0 (s, 3H, CH₃), 62.5 (s, 3H, CH₃), 63.0 (s, 3H, CH₃), 63.5 (s, 3H, CH₃), 64.0 (s, 3H, CH₃), 64.5 (s, 3H, CH₃), 65.0 (s, 3H, CH₃), 65.5 (s, 3H, CH₃), 66.0 (s, 3H, CH₃), 66.5 (s, 3H, CH₃), 67.0 (s, 3H, CH₃), 67.5 (s, 3H, CH₃), 68.0 (s, 3H, CH₃), 68.5 (s, 3H, CH₃), 69.0 (s, 3H, CH₃), 69.5 (s, 3H, CH₃), 70.0 (s, 3H, CH₃), 70.5 (s, 3H, CH₃), 71.0 (s, 3H, CH₃), 71.5 (s, 3H, CH₃), 72.0 (s, 3H, CH₃), 72.5 (s, 3H, CH₃), 73.0 (s, 3H, CH₃), 73.5 (s, 3H, CH₃), 74.0 (s, 3H, CH₃), 74.5 (s, 3H, CH₃), 75.0 (s, 3H, CH₃), 75.5 (s, 3H, CH₃), 76.0 (s, 3H, CH₃), 76.5 (s, 3H, CH₃), 77.0 (s, 3H, CH₃), 77.5 (s, 3H, CH₃), 78.0 (s, 3H, CH₃), 78.5 (s, 3H, CH₃), 79.0 (s, 3H, CH₃), 79.5 (s, 3H, CH₃), 80.0 (s, 3H, CH₃), 80.5 (s, 3H, CH₃), 81.0 (s, 3H, CH₃), 81.5 (s, 3H, CH₃), 82.0 (s, 3H, CH₃), 82.5 (s, 3H, CH₃), 83.0 (s, 3H, CH₃), 83.5 (s, 3H, CH₃), 84.0 (s, 3H, CH₃), 84.5 (s, 3H, CH₃), 85.0 (s, 3H, CH₃), 85.5 (s, 3H, CH₃), 86.0 (s, 3H, CH₃), 86.5 (s, 3H, CH₃), 87.0 (s, 3H, CH₃), 87.5 (s,

[illegible]

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ROCHETON, N.Y.

5

Reaction of 2-chlorovinyl ketones with phenyl azide.
 N. S. Kharasch (Morgantown, Pa.), J. Am. Chem. Soc. 75, 1200-1 (1953).—Heating 3.5 g. PhN₃ and 5 g. MeCOCH:CHCl in CCl₄ 10 hrs. under reflux gave 35% 1-phenyl-4-acetyl-1,2,3-triazole (I), m. 108-9° (from dil. EtOH), which with alk. soln. of iodine yields CHI₃, semicarbazone, m. 222-3°. PhN₃ and PrCOCH:CHCl similarly gave 29.2% 1-phenyl-4-isopropyl-1,2,3-triazole, m. 100-10°. Iso-BuCOCH:CHCl and PhN₃ similarly gave 21% 1-phenyl-4-isobutyl-1,2,3-triazole, m. 90.5-91°. C₆H₅COCH:CHCl and PhN₃ gave 61% 1-phenyl-4-(benzoylacetyl)-1,2,3-triazole, m. 184-6° (from CCl₄), which heated with C₆H₅NH₂ in EtOH 6 hrs. gave 96% 2-amino-4-(1-phenyl-4-triazolyl)thiazole-HCl.H₂O, decomp. 213-5°; free base, m. 174-5° (from dil. EtOH). Oxidation of I with alk. KMnO₄ gave 1-phenyl-1,2,3-triazole-4-carboxylic acid, m. 149-50°. Also in J. Gen. Chem. U.S.S.R. 29, 1313 (1953) (Engl. translation). G. M. Rowlands, ed.

"APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723510014-8

APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723510014-8"

КОСМЕТЕОВ, Н. К.

"APPROVED FOR RELEASE: 09/18/2001

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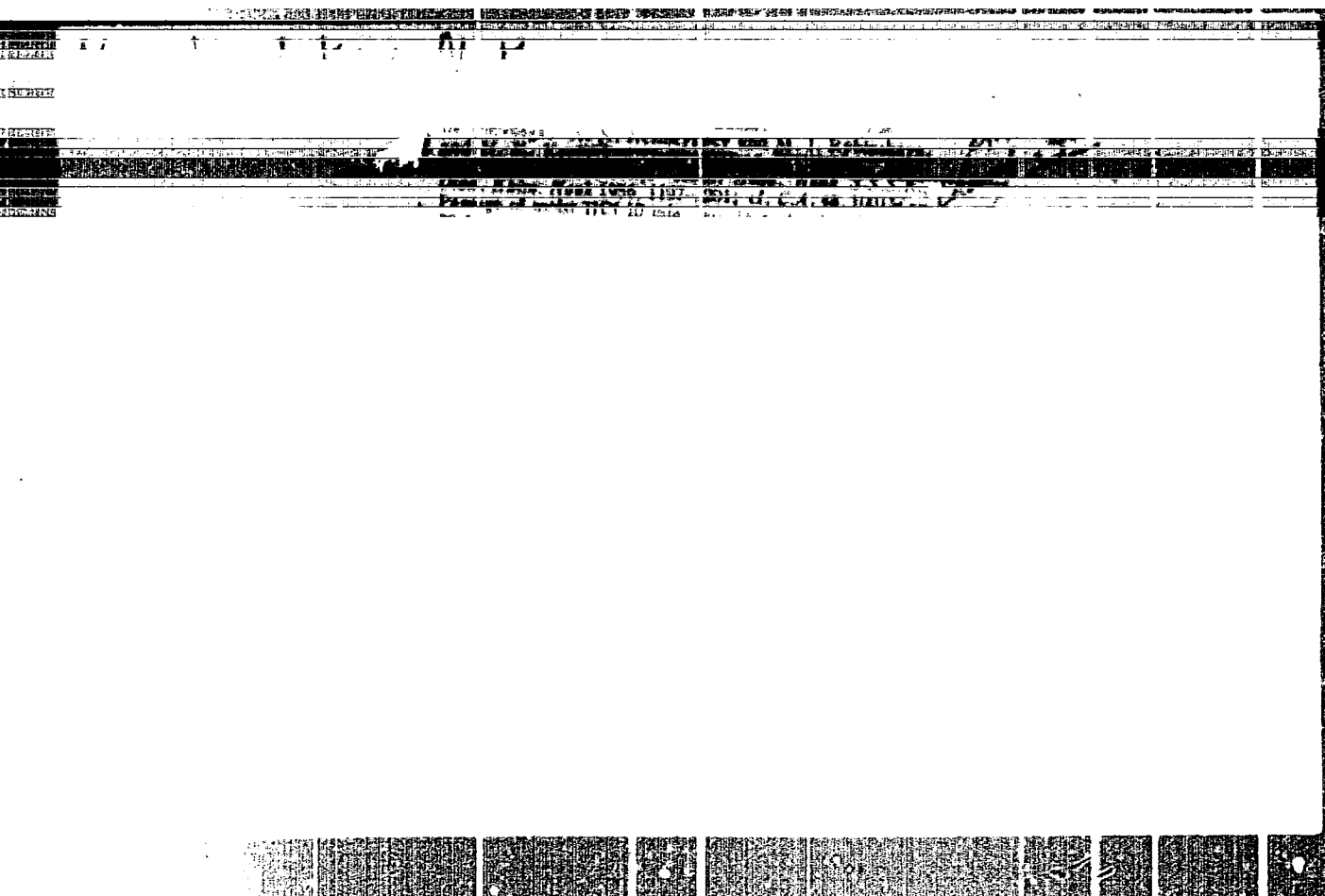
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APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723510014-8"

KOCHETKOV, M.K.; DOMBROVSKIY, Yemish; HAZHENOVA, A.V.; SEVERIN, Ye.S.; KESOGYANDOV, A.N.

β -amino vinyl ketones. Part 4. Synthesis of ketones of the pyridine series. Izv. AN SSSR Otd. khim. nauk no. 2:172-176 P 156. (MLA 9:7)

1. Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova.
(Ketones) (Pyridine)

ketones. New Synthesis of Oxym...

Orig Pub: Izv. AN SSSR, Otd. Khim. N., 1956, No 6, 676-680.

APPROVED FOR RELEASE: 09/18/2001

Abstract: A new method is offered for the synthesis of β -amino ketones by the hydrolysis of the products of interaction R (R-alkyl) and alkyl- β -dialkylamino-vinylketones. The reaction proceeds smoothly with CH_3 , but not with CH_3Br ; the higher the radicals, the yields become lower. With $(\text{CH}_3)_2\text{SO}$, the yield is lowered to 4-5%. The method of the synthesis of $\text{RCOCH}=\text{CHN}(\text{CH}_3)_2$ (where R-alkyl) from $\text{RCOCH}=\text{CHCl}$ is applied in the synthesis of aryl- β -dimethylamino-vinylketones. Obtained were (enumerated are the

Card : 1/3

USSR/Organic Chemistry, Synthetic Organic Chemistry.

E-2

Abs Jour: Ref Zhur-Khimiya No 6, 1957, 19073.

ketones, yield in percent, boiling p. in $^{\circ}\text{C}/\text{mm Hg}$, n_D^{20} , d_4^{20}):
 $\text{C}_6\text{H}_5\text{COCH}=\text{CHN}(\text{CH}_3)_2$, 56.4, 95-96/4 1.5400, 0.9533;
 $\text{C}_6\text{H}_{11}\text{COCH}=\text{CHN}(\text{CH}_3)_2$, yield 80%, melting p. 90-91
(from petr. ether). A solution of 11 g. η -Cl $\text{C}_6\text{H}_4\text{COCH}=\text{CHCl}$ in 15 cc C_6H_6 on cooling and stirring, is added to 20 cc of a 30% aqueous solution of $(\text{CH}_3)_2\text{NH}$, stirred for an hour, yielding η -Cl $\text{C}_6\text{H}_4\text{COCH}=\text{CHN}(\text{CH}_3)_2$, 82.4%
(from petr. ether). Boiling points (110-120) are

USSR/Organic Chemistry - Synthetic Organic Chemistry, E-2

Abst Journal: Referat Zhur - Khimiya, No 1, 1957, 848

Author: Kochetkov, N. K., Khorlin, A. Ya., and Karpeyskiy, M. Ya.

Institution: None

Title: Direct Synthesis of Aryl- α -chlorovinylketones

Original

Periodical: Zh. obshch. khimii, 1956, Vol 26, No 2, 595-598

Abstract: A convenient method is described for the synthesis of aryl- α -chlorovinylketones $\text{ArCOCH}=\text{CHCl}$ (I), where Ar can be C_6H_5 (a), $n\text{-CH}_3\text{C}_6\text{H}_4$ [sic] (b), $n\text{-ClC}_6\text{H}_4$ (c), $o\text{-BrC}_6\text{H}_4$ (d), $n\text{-NO}_2\text{C}_6\text{H}_4$ (e) [Tr. Note: n- apparently is equivalent to p-], by the direct reaction of ArCOCl with C_2H_2 in the presence of AlCl_3 and ethylene chloride. To a solution of 100 gms $\text{C}_6\text{H}_5\text{COCl}$ in 100 ml ethylene chloride cooled to zero degrees, 95 gms of anhydrous AlCl_3 are added with cooling and constant mixing (temperature 10°); next, C_2H_2 is passed through the mixture with vigorous stirring for 6-7 hours at $40\text{-}50^\circ$; the reaction mixture is then poured over ice, and the organic layer separated and dried

Card 1/2

KOCHETKOV, M.K.; KUDRYASHOV, L.I.

Interaction of β -chlorovinyl ketenes with β -dicarbonyl compounds.
Part 2. Ketovinylation of alkylmalonic esters. Zhur.ob.khim. 26
no.3:851-856 Nr '56. (MLA 9:8)

1. Institut farmakologii Akademii meditsinskikh nauk SSSR.
(Malonic acid) (Ketones) (Vinylation)

"APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723510014-8

APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723510014-8"

KOCHETKOV, N. K.

USSR/Organic Chemistry - Synthetic Organic Chemistry

E-2

Abs Jour : Referat Zhur - Khimiya, No 2, 1957, 4405

Author : Kochetkov, N. K., Vorotnikova, L. A.

Title : On Synthesis of Phthalazines by Cyclization of Acylhydrazones of Aromatic Aldehydes

Orig Pub : Zh. obshch. khimii, 1956, 26, No 4, 1143-1145

Abstract : Treatment of acylhydrazones of aromatic aldehydes with HCl gas in iso-C₄H₁₁OH (1 hour at ~100° and 1 hour boiling) gives not derivatives of phthalazine (PA) as was formerly believed (Agarwal J. et al., J. Chem. Soc., 1929, 1941, 1930, 2354) but the osines (A) of the corresponding aldehydes. This is demonstrated in the case of acetyl- and benzoyl hydrazones of veratric aldehyde (I and II) and benzoyl hydrazone of anisaldehyde. The very close melting point values of PA and the corresponding A have contributed to the previous erroneous conclusions. Formation of A and not of PA in the

Card 1/2

- 64 -

KOCHETKOV, N. K.

USSR/Organic Chemistry. Synthetic Organic Chemistry.

E-2

Abs Jour: Ref Zhur-Khimiya, No 6, 1957, 19132

Author : Kochetkov N. K., Dadykina N. V.

Inst :

Title : Synthesis of Substituted Benzylamines and N-benzyl-chloropropionamides.

Orig Pub: Zh. obshch. khimii, 1956, 26 No 9, 2612-2617

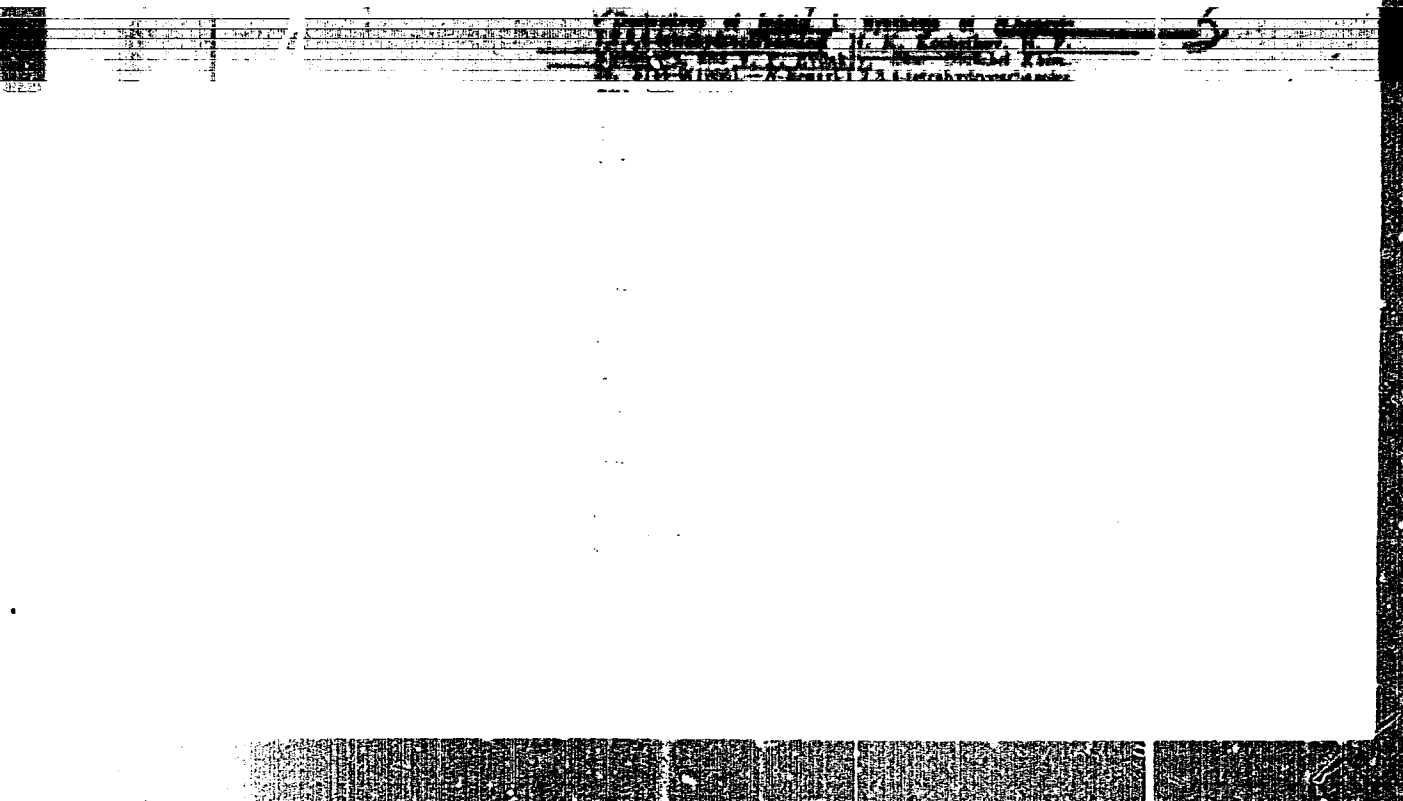
Abstract: With the purpose to determine the influence of a substitute in the nucleus of C₆H₄-CH₂-NH₂ (I) on antispasmodic activity (PA) RCH₂-NHCOC₂H₄-CH₂-Cl (II) is synthesized; a general method of synthesis is worked out substituting I by urotropine salts. To 12 g. of 3,4- (CH₃O)₂C₆H₃CH₂-NH₂ (III) in 60 cc water at 8-10° are added in drops simultaneously 9.13 g. ClCH₂-CH₂-COCl (IV) and 2.86 g. NaOH in 15 cc water, the addition of NaOH is carried to a pH 8.0-8.5, stirred for 30-40 min. at ~20° and II

Card : 1/5

CH₂-C₆H₄-CH₂-NH₂ 45.6, 84-85°/10, 1.55/12, 1.6405,

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CIA-RDP86-00513R000723510014-8"

KUCHEROVA, N.F.; KOCHETKOV, N.K.

Indole derivatives: Part 2. Synthesis of certain 1, 2, 3, 4-tetrahydro- β -carbolins derivatives. Zhur.ob.khim. 26 no.11:3149-3154
N '56. (MIRA 10:1)

1. Institut farmakologii i khimioterapii Akademii meditsinskikh nauk
SSSR. (Indole)

"APPROVED FOR RELEASE: 09/18/2001

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CIA-RDP86-00513R000723510014-8"

RESNAYANOV, A.N.; KOCHETKOV, N.K.

β -Chlorovinyl ketones in the synthesis of heterocyclic compounds.
Uch.sop.Mosk.un. no.175185-95 '56. (MIRA 1013)
(Heterocyclic compounds)
(Ketones)

"APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723510014-8

APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723510014-8"

KOCHEIKOV, M.K.; KHOMUTOVA, Ye.D.; MIKHAYLOVA, O.B.; KESCHYANOV, A.N.

Synthesis of arylpyrazoles. Izv. AN SSSR Otd. khim. nauk
no.10:1181-1185 O '57. (MIRA 11:3)

1.Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova.
(Pyrazole)

Kochetkov, N. K.

KLIMKO, V.T.; KHORLIN, A.Ya.; MIKHAILOV, V.A.; SKOLDINOV, A.P.; KOCHETKOV, N.K.

β -aminovinyl ketones. Part 7: Reaction of β -chlorovinyl ketones with tertiary amines. Izv. ob. khim. 27 no.1:62-65 Ja '57. (MIRA 10:6)

1. Institut farmakologii i khimioterapii Akademii meditsinskikh nauk SSSR. (Vinyl compounds) (Ketones) (Amines)

486

AUTHORS:

Kochetkov, N. K., and Kudryashov, L. I.

TITLE:

Reaction of beta-Chlorovinyl Ketones with beta-Dicarbonyl Compounds. Part 3. Ketovinylation of Malonic Ester. New Synthesis of alpha-Pyrone (Vzaimodeystviye beta-khlorvinilketonov s beta-dikarbonil'nyimi soyedineniyami. III. Ketovinilirovaniye malonovogo estira. Novyy sintez alpha-pironov)

PERIODICAL:

Zhurnal Obshchey Khimii, 1957, Vol. 27, No. 1, pp. 248-253 (U.S.S.R.)

ABSTRACT:

The ketovinylation reaction of malonic ester was considered of interest for the development of new organic synthesis methods for the aliphatic and the oxygen-containing heterocyclic series. A new method of synthesizing beta-ketoalkenylmalonic esters of the $\text{R-COCH} = \text{CHCH}(\text{COOC}_2\text{H}_5)_2$ type by the reaction of beta-chlorovinyl ketones with ethoxymagnesiummalonic esters, is described. Acetyl chloride which preserves the homogeneity of the medium during reaction was used as a condensation medium. Cyclization in this case was realized simply by heating the ketoalkenylmalonic ester/acetyl chloride mixture and the product (pyrone) obtained was purified by distillation. In this way, the authors obtained 6-methyl-, 6-ethyl- and 6-propyl-3-carboethoxy-alpha-pyrone

Card 1/2

January 27, 1956

AVAILABLE:

487

AUTHORS: Kochetkov, M. K.; Kucherova, N. F.; Yevdakov, V. P.
TITLE: Indole Derivatives, Part 3. Synthesis of 6-Oxy-1,2,3,4-Tetrahydrocarbazole Derivatives (Proizvodnye Indola. III. Sintez proizvodnykh 6-oks-1,2,3,4-tetragidrokabazola)
PERIODICAL: Zhurnal Obshchey Khimii, 1957, Vol. 27, No. 1, pp. 253-257 (U.S.S.R.)

ABSTRACT: In order to explain the effect of changes occurring in the nucleus of the molecule on the myotic activity of indole derivatives, the authors synthesized an eserine analogue of the tetrahydrocarbazole series, namely, methylurethan of 6-oxy-9-methyl-1,2,3,4-tetrahydrocarbazole. It is shown that the Tomlinson (2,3) method of synthesizing tetracarbazole derivatives by the condensation of aromatic amines with 2-oxycyclohexanone in the presence of hydrochloric acid is false and inapplicable. The products obtained by the Tomlinson method were found to be acyclic products of condensation, namely 2-arylamino-cyclohexanones. It is pointed out that the condensation of aromatic amines with oxycyclohexanone into tetrahydrocarbazole derivatives can be realized provided the hydrochloric acid (used by Tomlinson) is substituted with phosphorus

Card 1/2

January 4, 1956

AVAILABLE: APPROVED FOR RELEASE: 09/18/2001 CIA-RDP86-00513R000723510014-8

Card 2/2

79-2-38/53

AUTHORS:

Kochetkov, M. K.; Khomutova, Ye. D.; Karpeyskiy, M. Ya.; Khorlin, A. Ya.

TITLE:

Study of Isoxazole. Part 3. Synthesis of Arylisoxazoles (Issledovaniye v ryadu isoksaazola. III. Sintez arilizoksaazolov)

PERIODICAL:

Zhurnal Obshchey Khimii, 1957, vol 27, No 2, pp. 452-457 (U.S.S.R.)

ABSTRACT:

It is shown that aryl-beta-chlorovinyl ketones react with hydrochloride hydroxylamine under the very same conditions as their aliphatic analogues. When both components are heated in methanol, they produce high yields of arylisoxazoles. The reaction of alkyl-beta-chlorovinyl ketones with hydroxylamine yields a mixture of alpha- and gamma-isomers (5- and 3-substituted isoxazoles) with 50 - 60% of the alpha-form. The reaction with phenyl-beta-chlorovinyl ketone produces a mixture of alpha- and gamma-phenylisoxazoles in approximately equal amounts. The alpha-isomer content in the phenylisoxazole was 62-67%. Phenyl-beta-chlorovinyl ketones with substituents in the aromatic ring react smoothly with hydroxylamine, giving high yields of arylisoxazoles. It is shown that the ratio of alpha- and gamma-substituted isoxazoles formed during the reaction of beta-substituted vinyl ketones $\text{RCOCH}=\text{CHX}$ with hydroxylamine depends

Card 1/2

79-2-40/58

AUTHORS: Kochetkov, N. K. and Vinogradova, V. N.
TITLE: Ketovinylation of Thiophenols (Ketovinilirovaniye tiofenolov)
PERIODICAL: Zhurnal Obshchey Khimii, 1957, vol 27, No 2, pp. 460-464 (U.S.S.R.)

ABSTRACT:

This report is devoted to the study of the first reaction between beta-chlorovinyl ketones with thiophenols. A new method was developed for the synthesis of hitherto unknown aryl-beta-acylvinyl sulfides which are derived with high yields from the reaction of beta-chlorovinyl ketones with thiophenols in an alkali medium. It was established that during the ketovinylation of thiophenols, the actual reaction includes the sodium thiophenolate and is followed by nucleophilic substitution of the Cl atom in the molecule of the beta-chlorovinyl ketone under the effect of the thiophenolate ion. A study of certain reactions of these compounds showed a close similarity to other beta-substituted vinyl ketones. The aryl-beta-acylvinylsulfides $\text{RCOCH}=\text{CHSR}$ obtained as a result of the reaction are described as colorless solid bodies easily separated from the reaction mixture by conventional means. All the synthesized sulfides showed good storage stability.

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Ketovinylation of Thiophenols.

There are 13 references, of which 10 are Slavic

ASSOCIATION: Moscow State University

PRESENTED BY:

SUBMITTED: February 21, 1956

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